



LORIA Computer Science and health related activities

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► To cite this version:

Jean-Pierre Thomesse. LORIA Computer Science and health related activities. Journée d'études Promotech, 2002, Villers-lès-Nancy/France. inria-00107597

HAL Id: inria-00107597

<https://inria.hal.science/inria-00107597>

Submitted on 19 Oct 2006

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LORIA

Computer Science and Health activities

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LORIA

- 1 laboratory in computer science and applications
- 1 INPL, UHP, Nancy2, INRIA, CNRS
- 1 ~400 researchers
- 1 25 teams
- 1 common actions based on applications as :
 - health
 - transport

action Quant Ó

1 Computer Aided Diagnosis - Telemedicine

- based on health status modelling
- periodic data acquisition
- alarm generation
- self learning systems

1 Image analysis and synthesis - virtual reality

- 3D images reconstitution
- surgeon training
- neurology, cardiology, urology, É

action Quant Ó

1 Telemedicine - CAD - applications

- kidney disease
- heart failure patients
- high blood pressure patients
- diabetes
- anaesthesia follow-up
- elderly people

DI ATELIC: a new generation telemedicine system

- 1 interaction between the users
 - patient (CAPD)
 - physician
 - nephrologist
- 1 data acquisition and transmission
- 1 data analysis - health status model
 - diagnosis establishment
 - alarms detection and transmission
 - patient feedback
 - physician information



results

1 medical results

- half of hospitalisation days
- less consumption of drugs
- best weight
- best blood pressure

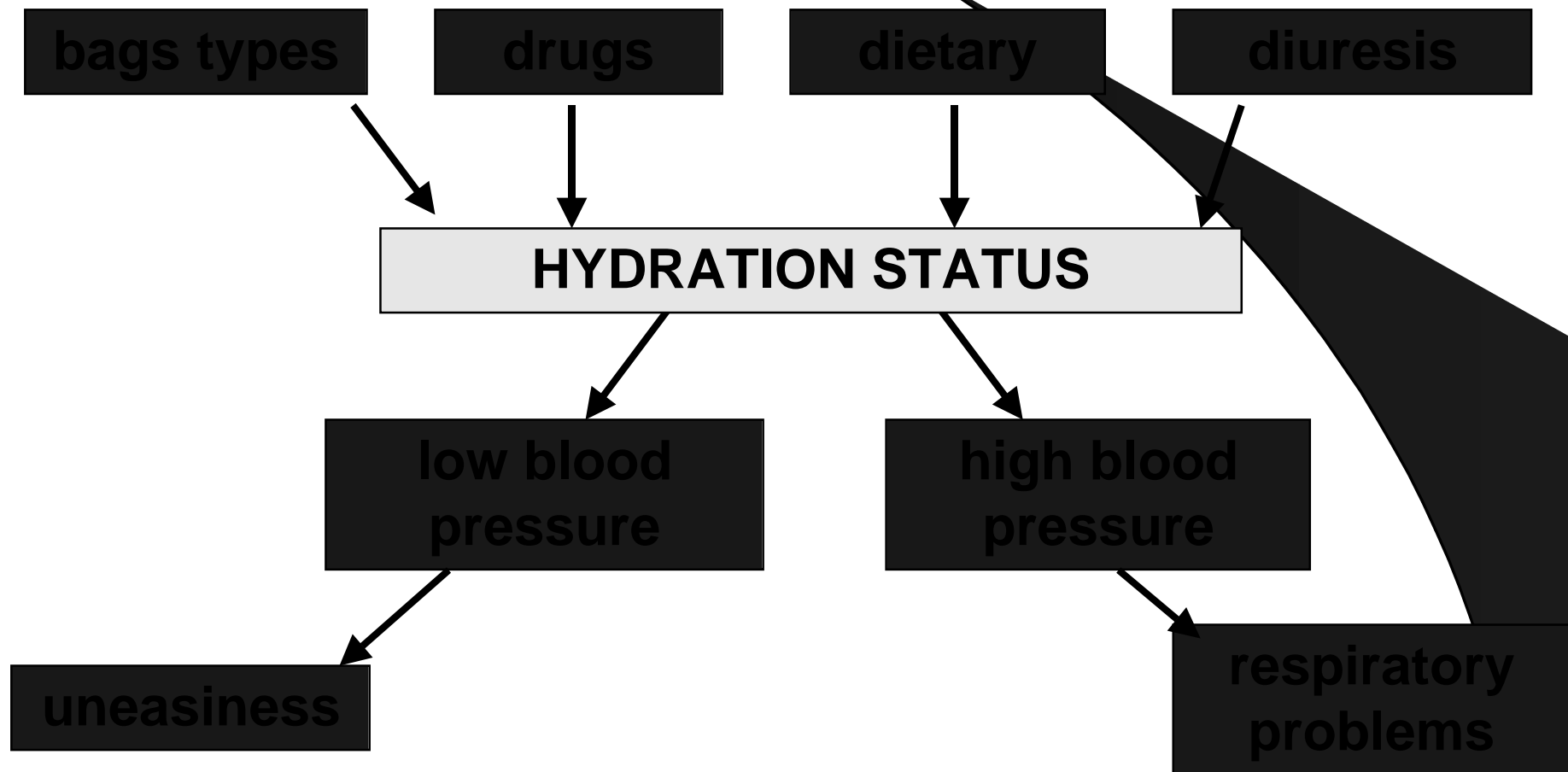
1 economical results

- economy of 10 000 euro/patient/year
- economy of time for physicians

methodology

- 1 co-operation with physicians
- 1 modelling stage, development and test
- 1 medical experiment, validation
- 1 patents
- 1 start-up, DIATELIC SAÓ
- 1 equipment of 150 patients in Lorraine in 2002

usual problems



Pathological State Space

